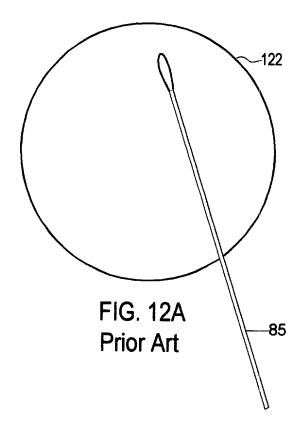


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TABLE OF COLONY	CHARACTERISTICS
	TIONS MARGINS ENTIRE UNDULATE BONATE UMBILICATE CURLED FILAMENTOUS
FORM: OVERALL SHAPE OF COLONY WHEN VIEWED FROM TOP	CIRCULAR - MOSTLY ROUND, MAY BE SLIGHTLY UNEVEN WRINKLED UNEVEN SURFACE TEXTURE, OFTEN DRY IN APPEARANCE IRREGULAR - EDGES VERY UNEVEN RHIZOIDAL - BRANCHED (UNCOMMON) FILAMENTOUS - POWDERY, SPREADING LINES (FUNGI) CURLED - SEPARATED EDGES, CONCENTRIC CIRCLES (UNCOMMON)
ELEVATION: VIEW COLONY FROM SIDE	FLAT - WHEN LIGHT IS REFLECTED ACROSS SURFACE OF COLONY, NO CONVEX SHAPE IS SEEN (COMMON) RAISED - ELEVATED (COMMON) CONVEX - SLIGHT DOME SHAPE (COMMON) PULVINATE - HAT-LIKE APPEARANCE -DOMED IN MIDDLE, SLIGHTLY RAISED AT EDGES (MOST SIGNIFICANT IN 1-2 DAY CULTURE
MARGIN: VIEW EDGE OF COLONY	ENTIRE - SMOOTHLY CURVING EDGE (COMMON) UNDULATE - WAVY EDGE (COMMON) LOBATE - VERY IRREGULAR AMOEBA-LIKE EDGES (UNCOMMON) FILAMENTOUS - POWDERY LINES (FUNGI) CURLED - SEPARATE EDGES (UNCOMMON)
CONSISTENCY: TEXTURE OF COLONY WHEN LOOP IS INSERTED INTO IT	BUTYROUS - BUTTER-LIKE, CAN PICK US PASTE EASILY MUCOID - SLIMY (<3MM OF SLIME THAT ATTACHES TO END OF LOOP WHEN SAMPLING) (COMMON) VISCID- STICKY, RESISTANT TO PICK UP OF PASTE, SOME ELASTICITY OF COLONY HAS BEEN LOST (UNCOMMON) WAXLIKE - COLONY FRAGMENTS WHEN BEING PICKED UP (UNCOMMON) POWDERY - LIGHT FILAMENTS (FOUND MOSTLY IN MOLDS)
PIGMENT (COLOR)	OFF-WHITE - ANY VARIATION ON WHITE, INCLUDING GREY, TAN, CREAM, IVORY VERY PALE YELLOW WHITE - PORCELAIN WHITE ONLY (UNCOMMON)
APPEARANCE (REFLECTED LIGHT)	TEXTURE AS YOU TILT PLATE AND VIEW AT AN ANGLE FROM THE TOP UNDER A BRIGHT LIGHT
APPEARANCE (TRANSMITTED LIGHT) VIEW WHILE HOLDING UP TO BRIGHT LIGHT AND LOOK THROUGH COLONIES.	TRANSPARENT - COMPLETELY SEE-THROUGH, COLONIES HARD TO SEE (UNCOMMON). TRANSLUCENT - CAN SEE MODEST REDUCTION OF LIGHT PASSING THROUGH COLONY (COMMON) OPAQUE - ALMOST NO LIGHT PASSES THROUGH COLONY (COMMON)
DIAMETER OF COLONY	COLONIES NEED TO BE WELL SEPARATED. FUNCTION OF TIME

FIG. 11 **Prior Art**

MICROSCO	CELLULAR MORPHOLO OPE OBSERVATION (400 WILL BE OBSERVED WI)X-600X).
Spherical cells (COCCI)	Rod-shaped cells (BACILLI)	Spiral-shaped cells (SPIRILLA)
Streptococci Staphylococci	Coccobacilli (short rods) Coryneform bacilli (club shaped rods)	Borrelia-type spirillum Treponema-type spirillum
OD OD Diplococci	Vibrio (comma shaped rods)	Leptospira-type spirillum



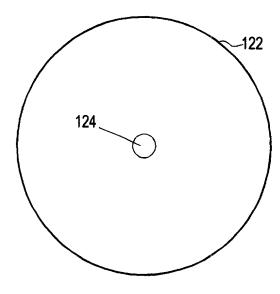


FIG. 12B Prior Art

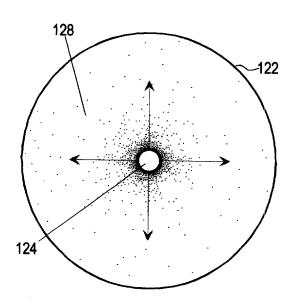


FIG. 12C Prior Art

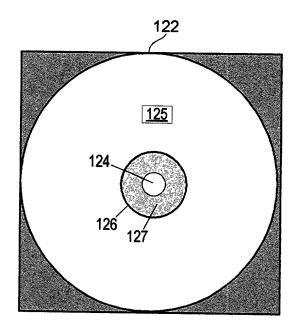


FIG. 12D Prior Art

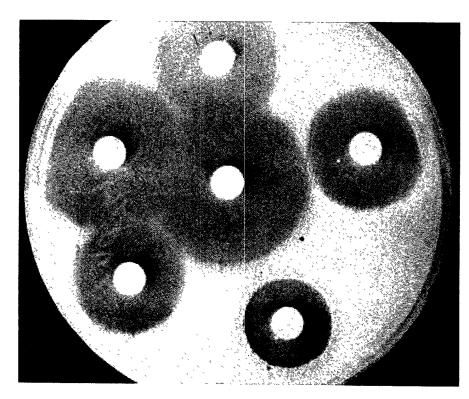


FIG.13 Prior Art

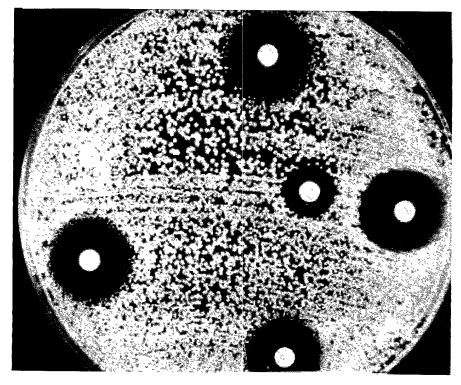
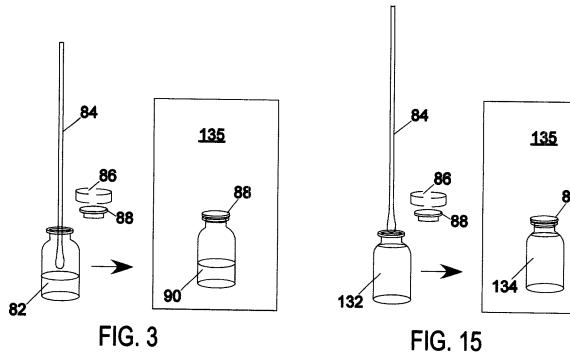
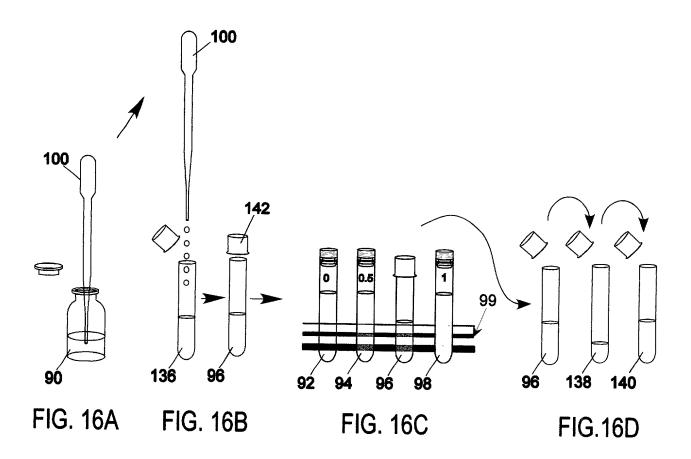
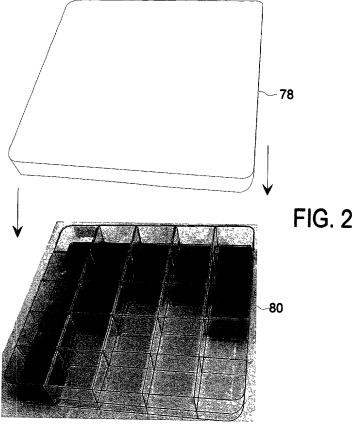
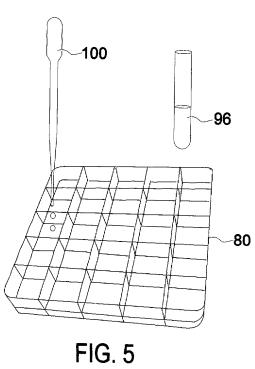


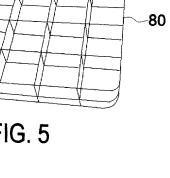
FIG.14 Prior Art

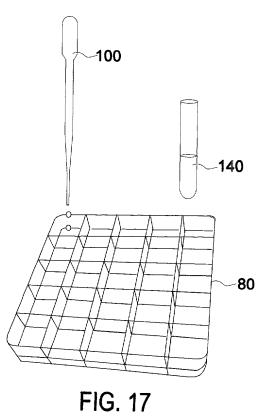












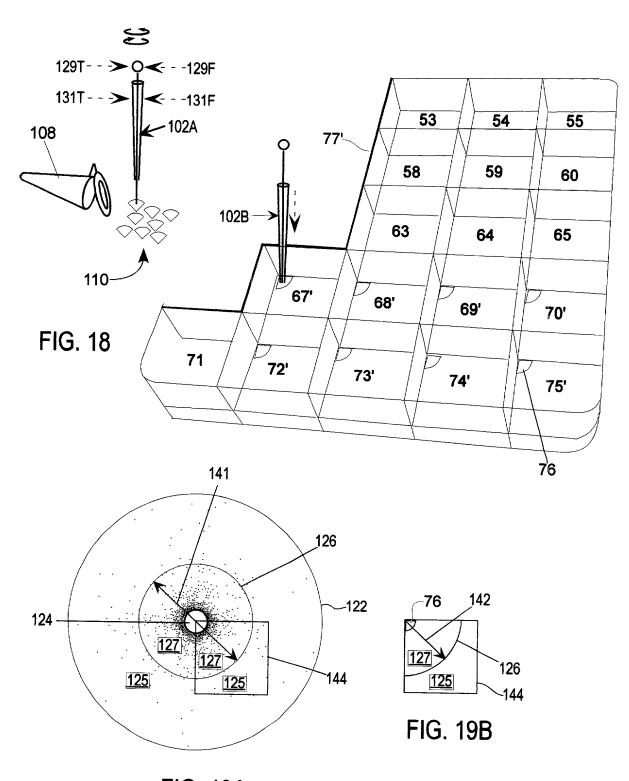
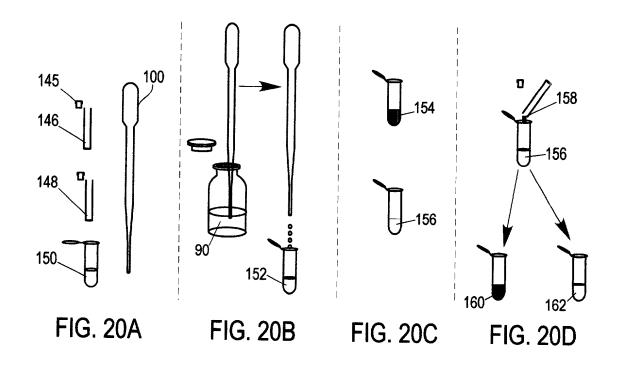


FIG. 19A



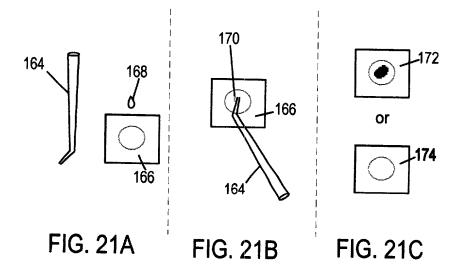


TABLE	OF CULT	TURE PLATE MEDIA AND THEIR PURPOSES
51		Used for isolating a wide variety of microorganisms. Contains 5% sheep red blood cells. Will grow all non- fastidious gram negative and gram positive organisms.
56		Used for isolating, differentiating and presumptively identifying group D streptococcus and Enterococcus These organisms cause the formation of a dark brown or black complex in the agar.
61	Mannitol satt egar	Staphylococci will grow in this medium while the growth of most other bacteria will be inhibited.
66		This medium permits the isolation of coagulase positive staphylococcus. Coagulase negative staph. and other bacteria are completely inhibited. Coagulase positive staph. reduce tellurite and produce black colonies.
71		Used for isolation of fungi. Suitable for growth of pathogenic fungi. Incubate for several days. Molds and yeasts form non-spreading, discrete colonies.
52		Used in the isolation of gram positive organisms from clinical and non-clinical specimens. Azide suppresses the growth of gram negative bacteria. Useful in determining hemolytic reactions.
62		Gram negative organisms that are able to metabolize citrate will grow luxuriantly. The medium is alkalinized and changes from its initial green to deep blue.
63	Psaudo- monas agar F	Used for differentiating Pseudomonas aeruginosa from other pseudomonads based on fluorescein production. Visible with UV lamp at 365nm.
64	Pseudo- monas agar P	Used for differentiating Pseudomonas aeruginosa from other pseudomonads based on the production of pyocyanin, a non-fluorescent blue pigment.
60		Used to isolate and differentiate Salmonella. Colonies are greenish blue, with black centers
65		MacConkey agar with an added substrate(MUG) that becomes fluorescent when E.coli is present. The E.coli's beta-glucuronidase enzyme cleaves the colorless MUG to fluorescent product that is detected with UV light 365nm
53		MacConkey agar with lactose. Selective and differential medium for growing gram negative bacilli. Lactose fermenting strains grow as red or pink colonies.
54		MacConkey agar with glucose. Selective and differential medium for growing gram negative bacilli. Glucose fermenting strains grow as red or pink colonies.
55		MacConkey agar with mannitol. Selective and differential medium for growing gram negative bacilli. Mannitol fermenting strains grow as red or pink colonies.
57		MacConkey agar with inositol. Selective and differential medium for growing gram negative bacilli. Inositol fermenting strains grow as red or pink colonies.
58		MacConkey agar with Sucrose. Selective and differential medium for growing gram negative bacilli. Sucrose fermenting strains grow as red or pink colonies.
59		MacConkey agar with arabinose. Selective and differential medium for growing gram negative bacilli. Arabinose fermenting strains grow as red- pink colonies.
67-70 72 - 75	Mueller Hinton agar	Considered to be the best media for routine susceptibility testing of non-fastidious bacteria. Eight chambers are set aside for this purpose.

FIG. 23

FIG. 22

TABLE OF PREFERRED EMBODIMENT OF CULTURE PLATE MEDIA Pseudo-monas monas agar F agar agar P Mueller Hinton agar Mueller Hinton Mueller Hinton Mueller Hinton agar agar agar Mueller Hinton agar Mueller Hinton agar Mueller Hinton agar Mueller Hinton agar 52 53 54 51 55 57 58 59 60 56 64 61 62 63 65 66 67 68 69 70 71 72 73 74 75

TABLE FOR IDENTIFICATION OF NON-FASTIDIOUS GRAM NEGATIVE BACTERIA USING KIT RESULTS
PAGE 1 OF 3

IDENTIFICATION CRITERIA: CIT ARA GLU INO LAC MAN SUC OXI NO2 MOT MAC

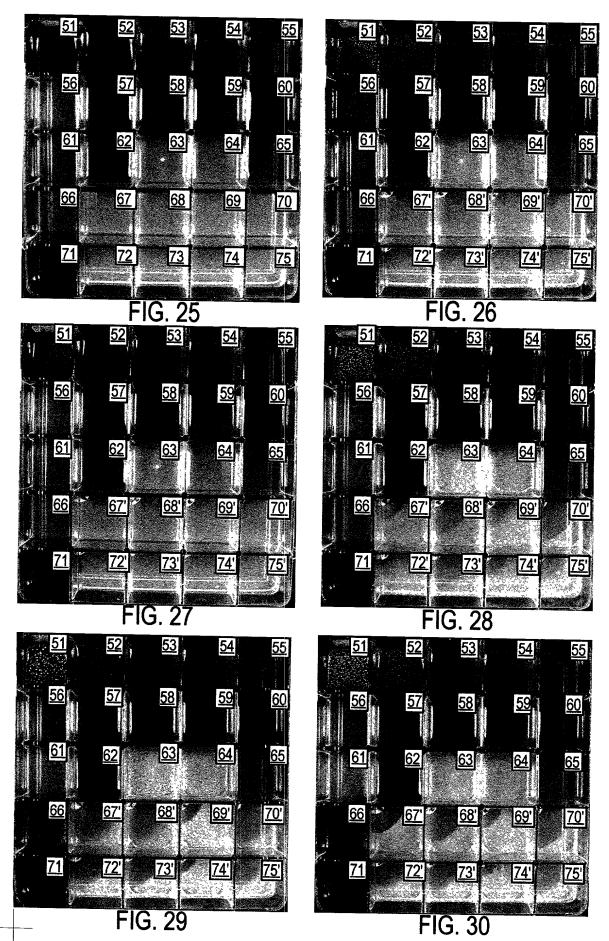
OBSERVE EACH CHAMBER OF PLATE REFERRING TO THE "TABLE OF CULTURE PLATE MEDIA AND THEIR PURPOSES". WHEN THE ORGANISM IS GRAM NEGATIVE (I.E. GROWTH ON MAC AND/OR OXIDASE POSTIVE) A LIST OF IDENTIFICATION CRITERIA CAN BE ASSEMBLED: CIT=UTILIZES CITRATE? ARA=FERMENTS ARABINOSE?; GLU=FERMENTS GLUCOSE?; INO=FERMENTS INOSITOL?; LAC=FERMENTS LACTOSE?; MAN=FERMENTS MANNITOL?; SUC=FERMENTS SUCROSE?; MAC=GROWS ON ANY MAC MEDIA; SEE ACCESSORY RESULTS FOR OXI=OXIDASE ACTIVITY, NO2=NITRATE REDUCTASE ACTIVITY, AND MOT=IS BACTERIA MOTILE?

LET 1 = YES AND 0 = NO. FILL IN BOXES ACCORDINGLY AND THEN SEARCH DATABASE BELOW FOR BEST MATCH (MANUALLY OR USING DATABASE FILTER SOFTWARE)

GRAM NEGATIVE ORGANISM	INCUBATION	CIT	ARA	GLU	INO	LAC	MAN	SUC	ОХІ	NO2	МОТ	MAC
			<u> </u>	ļ			ļ		L			
GRAM NEGATIVE ORGANISM	INCUBATION	CIT	ARA	GLU	INO	LAC	MAN	SUC	OXI	NO2	МОТ	MAC
Cedecea davisae	12-20h	0	0	1	0	0	1	1	0	1	1	1
Cedecea lapagei	12-20h	1	0	1	0	0	1	0	0	1	1	1
Cedecea neteri	12-20h	1	0	1	0	0	1	1	0	1	1	1
Cedecea sp. 3	12-20h	1	0	1	0	0	1	1	0	1	1	1
Cedecea sp.5	12-20h	0	0	1	0	0	1	1	0	1	1	1
Citrobacter amalonaticus	12-20h	1	1	1	0	1	1	0	0	1	1	1
Citrobacter diversus	12-20h	1	1	1	0	1	1	0	0	1	1	1
Citrobacter freundii	12-20h	1	1	1	0	1	1	1	0	1	1	1
Edwardsiella tarda	12-20h	0	0	1	0	0	0	0	0	1	1	1
Enterobacter aerogenes	12-20h	1	1	1	1	1	1	1	0	1	1	1
Enterobacter agglomerans	12-20h	1	1	1	0	1	1	1	0	1	1	1
Enterobacter amnigenus 1	12-20h	1	1	1	0	1	1	1	0	1	1	1
Enterobacter amnigenus 2	12-20h	1	1	1	0	1	1	0	0	1	1	1
Enterobacter cloacae	12-20h	1	1	1	0	1	1	1	0	1	1	1
Enterobacter gergoviae	12-20h	1	1	1	0	1	1	1	0	1	1	1
Enterobacter intermedium	12-20h	1	1	1	0	1	1	0	0	1	1	1
Enterobacter sakazakii	12-20h	1	1	1	1	1	1	1	0	1	1	1
Enterobacter taylorae	12-20h	1	1	1	0	1	1	0	0	1	1	1
Escherichia coli	12-20h	0	1	1	0	1	1	0	0	1	1	1
Escherichia fergusonii	12-20h	0	1	1	0	1	1	0	0	1	1	1
Escherichia hermannii	12-20h	0	1	1	0	1	1	1	0	1	1	1
Escherichia vulneris	12-20h	0	1	1	0	1	1	0	0	1	1	1
Ewingella americana	12-20h	0	0	1	0	0	1	0	0	1	1	1
Hafnia alvei	12-20h	0	1	1	0	0	1	0	0	1	1	1
Klebsiella oxytoca	12-20h	1	1	1	1	1	1	1	0	1	0	1
Klebsiella ozaenae	12-20h	0	1	1	1	1	1	0	0	1	0	1
Klebsiella pneumoniae	12-20h	1	1	1	1	1	1	1	0	1	0	1
Klebsiella Rhinoscleromatis	12-20h	0	0	1	1	1	1	0	0	1	0	1
Kluyvera sp.	12-20h	1	1	1	0	0	1	1	0	1	1	1
Moellerella wisconsensis	12-20h	0	0	1	0	0	0	1	0	1	0	1
Morganella morganii	12-20h	0	0	1	0	0	0	0	0	1	1	1
Presumptive Yersinia pestis	12-20h	0	0	1	0	0	1	0	0	1	0	1
Proteus mirabilis	12-20h	1	0	1	0	0	0	0	0	1	1	1

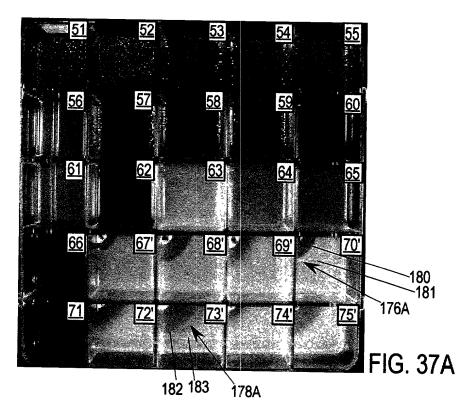
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TABLE FOR IDENTIFICATION OF	NON-FAST	IDIC		RAM N		TIVE	BACTI	RIA L	JSING	3 KIT	RESU	LTS
GRAM NEGATIVE ORGANISM	INCUBATION	CIT	ARA	GLU	INO	LAC	MAN	SUC	OXI	NO2	MOT	MAC
Proteus penneri	12-20h	0	0	1	0	0	0	1	0	1	1	1
Proteus vulgaris	12-20h	0	0	1	0	0	0	1	0	1	1	1
Providencia alcalifaciens	12-20h	1	0	1	0	0	0	0	0	1	1	1
Providencia rettgeri	12-20h	1	0	1	1	0	1	0	0	1	1	1
Providencia stuartii Ure-	12-20h	1	0	1	1	0	0	0	0	1	1	1
Providencia stuartii Ure+	12-20h	1	0	1	1	0	0	1	0	1	1	1
Salmonella cholerae suis	12-20h	0	0	1	0	0	1	0	0	1	1	1
Salmonella enteritidis	12-20h	1	1	1	0	0	1	0	0	1	1	1 1
Salmonella paratyphi A	12-20h	0	1	1	0	0	1	0	0	1	1	1
Salmonella subgroup 3	12-20h	1	1	1	0	0	1	0	0	1	1	1
Salmonella typhi	12-20h	0	6	1	0	0	1	0	0	1 1	1	1
Salmonella typhimurium	12-20h	1	1	1	0	0	1	0	0	1	1	1
Serratia fonticola	12-20h	0	1	1	1	1	1	0	0	+ +	1	1
Serratia odorifera 1	12-20h	1	1 1	1	1	1	1	1	1 0	1	1	1
Serratia odorifera 2	12-20h	1	+	 	1	1	1 1	0	1 0	1	++	+ +
Serratia plymuthica	12-20h	0	++	1	1	1	1	1	0	1	1	1
Serratia rubidaea	12-20h	1	1	1	0	+	1 1	1	10	1	1 1	1
Serratia liquefaciens	12-20h	1	1	1	1	1	1	1	0	1 1	1 1	1
Serratia marcescens	12-20h	1	0	1	1	1	1	1 1	10	1	1	1
Tatumella ptyseos	12-20h	0	0	1	10	0	6	1 1	10	1 1	 	+ +
Yersinia enteroclitica	12-20h	0	1	1	0	0	1	1	0	1	0	1 1
Yersinia enterocitica Yersinia frederiksenii /intermedia	12-20h	0	1	1	0	0	1	1	10	1	0	+
Yersinia kristensenii	12-20h	0	1	1	1	0	1	0	1 6	1	1 0	++
Yersinia pseudotuberculosis	12-20h	0	6	1	0	0	1 1	0	10	1	1 0	1 1
Yersinia ruckeri (AN)	12-20h	0	0	1	0	0	1	0	10	1	10	1 1
Achromobacter spp. (Vd)	24h	0	0	0	0	0	0	0	1	1	1	1 1
Achromobacter spp. (Vd)	48h	1	0	0	0	0	0	0	1	1 1	1 1	1
Achromobacter xylosoxidans	24h	0	1 0	0	1 0	0	0	0	1 1	1 1	1 1	1 1
Achromobacter xylosoxidans	48h	1	0	0	0	0	0	0	1 1	1	1 1	1 1
Acinetobacter calcoaceticsv.lwoffi	24h	10	10	0	0	0	0	0	 	10	+ ;	1 1
Acinetobacter calcoaceticsv.lwoffi	48h	0	0	0	0	0	 	+	10	1 0	1 0	
Acinetobacter calcoaceticus v.anitratus	24h	0	1	1	10	0	0	0	10	1 0	1 0	1 1
Acinetobacter calcoaceticus v.anitratus	48h	1	+ †	1 1	10	0	1 0	1 0	10	1 0	1 0	1 1
Aeromonas hydrophila group	24h	10	1	1	0	0	1	1	1	1 1	1	+ +
Aeromonas salmonicida (25c)	24h	0	0	1	10		1 1	 	1	+ +	+ ;	1 1
Agrobacterium radiobacter	24h	0	1 0	10	0	0	0	0	11	0	1 1	+ +
Agrobacterium radiobacter	48h	1	0	0	10	1 0	0	0	1 1	0	1 1	+ +
Alcaligenes spp.	24h	6	0	10	0	0	10	1 0	1	10	+	1 1
Alcaligenes spp.	48h	1	0	1 0	0	0	0	1 0	1	1 0	+ †	+ +
Bordetella bronchiseptica	24h	0	0	0	0	0	1 0	0	1	1 1	++	+ +
Bordetella bronchiseptica	48h	1	0	0	0	0	0	0	++	1	1 1	1 1
CDC Group II J	24h	0	1 0	0	0	0	0	0	++	0	1 0	0
CDC Group II J	48h	0	1 0	0	10	0	1 0	0	+ +	0	0	0
CDC Group IV C-2	24h	0	T ö	0	10	0	1 0	0	1 1	0	1	1
CDC Group IV C-2	48h	1	1 0	0	10	10	1 0	0	+ +	0	1 1	1 1
CDC Group IV E	24h	0	10	0	0	0		_	1	1	+ ;	+ +
CDC Group IV E	48h	0	0	0	0	0	0	0	1	+	-	
CDC Group V E-1	24h	 	+		+			0	_	1	1 0	1 1
CDC Group V E-1		1	1 1	1 1	10	0	10	0	10	10	+ + +	1 1
CDC Group v E-1	48h	1	1 1	1	0	0	0	0	10	1_1_	1 1	1 1

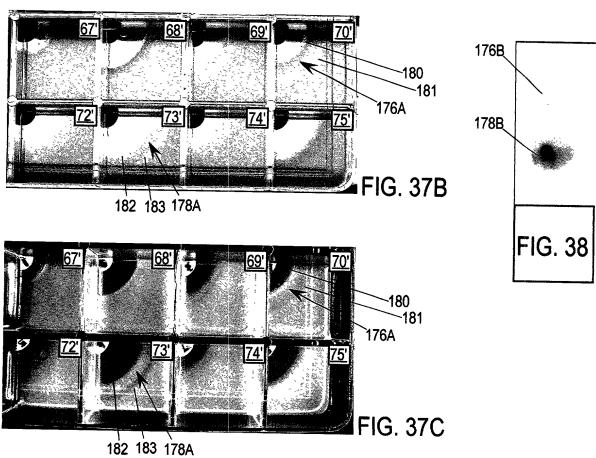
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TABLE FOR IDENTIFICATION (OF NON-FAST	IDIC	US GI	RAM N	NEGA	TIVE	BACTI	ERIA L	JSING	G KIT	RESU	LTS
			PAC	3E 3 C)F 3							
GRAM NEGATIVE ORGANISM	INCUBATION	CIT	ARA	GLU	INO	LAC	MAN	SUC	OXI	NO2	MOT	MAC
CDC Group V E-2	24h	1	1	1	0	0	0	0	0	0	1	1
CDC Group V E-2	48h	1	1	1	0	0	0	0	0	0	1	1
CDS Group II F	24h	0	0	0	0	0	0	0	1	0	0	0
CDS Group II F	48h	1	0	0	0	0	0	0	1	0	0	0
Chromobacterium	24h	1	0	1	0	0	0	0	1	1	1	1
Chromobacterium	48h	1	0	1	0	0	0	0	1	1	1	1
Eikenella corrodens	24h	0	0	0	0	0	0	0	1	0	0	0
Eikenella corrodens	48h	0	0	0	0	0	0	0	1	0	0	0
Flavobactierum breve	24h	0	0	0	0	0	0	0	1	0	0	1
Flavobactierum breve	48h	1	0	0	0	0	0	0	1	0	0	1
Flavobactierum meningosepticum	24h	0	0	0	0	0	0	0	1	0	0	1
Flavobactierum meningosepticum	48h	1	0	0	0	0	0	0	1	0	0	1
Flavobactierum Multivorum	24h	0	0	1	0	0	0	0	1	0	0	1
Flavobactierum Multivorum	48h	1	0	1	0	0	0	1	1	0	0	1
Flavobactierum odoratum	24h	0	0	0	0	0	0	0	1	0	0	1
Flavobactierum odoratum	48h	1	0	0	0	0	0	0	1	0	0	1
Flavobactierum spiritivorum	24h	0	0	0	0	0	0	0	1	0	0	0
Flavobactierum spiritivorum	48h	0	0	0	0	0	0	0	1	0	0	0
Flavobactierum spp. (IIB)	24h	0	0	0	0	0	0	0	1	0	0	1
Flavobactierum spp. (IIB)	48h	1	0	0	0	0	0	0	1	0	0	1
Moraxella spp.	24h	0	0	0	0	0	0	0	1	1	0	0
Moraxella spp.	48h	0	0	0	0	0	0	0	1	1	0	0
Other Psudomonas spp.	24h	0	0	0	0	0	0	0	1	1	1	1
Other Psudomonas spp.	48h	1	0	0	0	0	0	0	1	1	1	1
Pasteurella aerogenes	24h	0	1	1	1	0	0	1	1	1	0	1
Pasteurella aerogenes	48h	0	1	1	1	0	0	1	1	1	0	1
Pasteurella multocida	24h	0							1	1	0	0
Pasteurella multocida	48h	0						1	1	1	0	0
Pasteurella-Actinobaccilus spp.	24h	0	0	0	0	0	0	0	1	1	0	0
Pasteurella-Actinobaccilus spp.	48h	0	0	0	0	0	0	0	1	1	0	0
Plesiomonas shigelloides	24h	0	0	1	1	0	0	0	1	1	1	1
Pseudomonas cepacia	24h	1	0	1	0	0	0	0	1	0	1	1
Pseudomonas cepacia	48h	1	0	1	0	0	0	0	1	0	1	1
Pseudomonas fluorescens	24h	0	0	0	0	0	0	0	1	1	1	1
Pseudomonas fluorescens	48h	1	0	0	0	0	0	0	1	1	1	1
Pseudomonas maltophilia	24h	1	0	0	0	0	0	0	0	0	1	1
Pseudomonas maltophilia	48h	1	0	0	0	0	0	0	0	0	1	1
Pseudomonas Paucimobilis	24h	0	0	0	0	0	0	0	1	0	0	0
Pseudomonas Paucimobilis	48h	1	0	0	0	0	0	0	1	0	0	0
Pseudomonas putida	24h	1	0	0	0	0	0	0	1	0	1	1
Pseudomonas putida	48h	1	0	0	0	0	0	0	1	0	1	1
Pseudomonas putrefaciens	24h	1	0	0	0	0	0	0	1	1	1	1
Pseudomonas putrefaciens	48h	1	0	0	0	0	0	0	1	1	1	1
Pseudomonas Stutzeri	24h	0	0	0	0	0	0	0	1	1	1	1
Pseudomonas Stutzeri	48h	1	0	0	0	0	0	0	1	1	1	1
Pseudomonas aeruginosa	24h	1	0	1	0	0	0	0	1	1	1	1
Pseudomonas aeruginosa	48h	1	0	1	0	0	0	0	1	1	1	1
Pseudomonas pseudomallei	24h	0	1	0	1	0	1	1	1	1	1	1
Pseudomonas pseudomallei	48h	0	0	1	1	0	1	1	1	1	1 1	1





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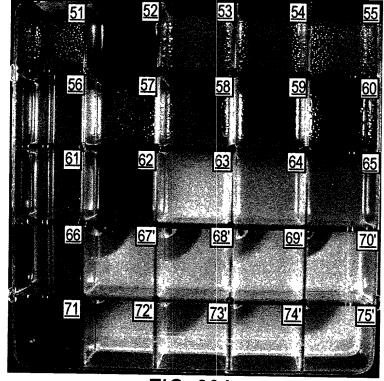
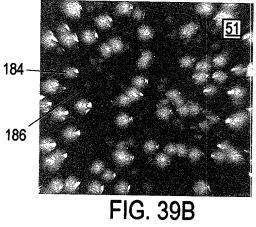


FIG. 39A



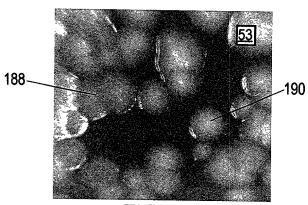


FIG. 39D

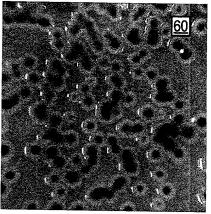


FIG. 39C

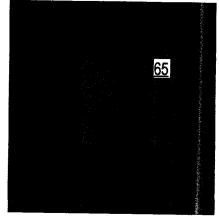


FIG. 39E

Inventor's note:

This page at one time contained figures. They have recently been deleted and are not part of my final application. Rather than having to reprint all of my drawings, I have included this page as a blank page.